

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In the Application of:

Ronald L. Mahany

Serial No. 10/057,816

Filed: January 24, 2002

For: Remote Radio Data Communication  
System With Data Rate Switching

Examiner: Nguyen Thanh Vo

Group Art Unit: 2685

Confirmation No.: 4621

**ELECTRONICALLY FILED**  
**On August 21, 2007**

**INFORMATION DISCLOSURE STATEMENT**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Attached with this electronic submission are the following:

- A completed PTO/SB/08A which has four (4) pages.
- A copy of each printed reference listed in the PTO/SB/08A form is attached. Applicants, however, have not submitted U.S. Patents or other references previously provided to or by the PTO in this application. Fifty-five (55) references are attached in the electronic submission.

**FEE DETERMINATION AND PAYMENT**

A fee of \$180.00 is due because:

- The first Office action on the merits has been received by applicant(s).
- Applicant(s) believe(s) that this statement and attachments are being filed before any final action has been mailed by the PTO; before a notice of allowance has issued; and prior to any other action that would close prosecution in the

application. The basis of this belief is that no final action, no notice of allowance, and no other action that would close prosecution of the application appear to have been received by the undersigned to date.

The Commissioner is hereby authorized to charge any fees which are presently required, or credit any overpayment, to Deposit Account No. 13-0017.

#### REQUEST FOR CONSIDERATION

This paper and attachments are believed to be entitled to consideration under 37 C.F.R. § 1.97, based on the facts stated above.

The owner of record of the present application, Broadcom Corporation, is currently involved in a patent infringement action with Qualcomm, Inc., Civil Action No. 05-467, pending in the Central District of California.

The references being submitted have been either cited, produced or relied upon by Qualcomm thus far during the above-mentioned lawsuit and/or investigation. This electronic submission is in no way intended as an admission that the submitted references constitute prior art under any subsection of 35 U.S.C. §102 or §103. Applicant expressly retains the right to argue that any of the cited references are not indeed prior art or to take any actions necessary to remove any of the cited references from the available prior art.

The Examiner is requested to initial the attached PTO/SB/08A and return one copy to the applicants to indicate consideration of the attached references.

Respectfully submitted,

Date: August 21, 2007

/phs/  
Philip Henry Sheridan  
Reg. No. 59,918

McAndrews, Held & Malloy, Ltd.  
500 West Madison Street, 34<sup>th</sup> Floor  
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Substitute for form 1449A/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				Application Number 10/057,816	
(use as many sheets as necessary)				Filing Date January 24, 2002	
Sheet 1 of 4				First Named Inventor Ronald L. Mahany	
				Group Art Unit 2685	
				Examiner Name Nguyen Thanh Vo	
				Attorney Docket Number 14419US01	

U.S. PATENT DOCUMENTS					
Examiner Initial*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A18	4,639,914	01/27/1987	Winters	
	A19	4,672,658	06/09/1987	Kavehrad	
	A20	4,784,450	11/15/1988	Jain	
	A21	5,029,183	07/02/1991	Tymes	
	A22	5,235,614	08/10/1993	Bruckert	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>2</sup> -Number <sup>3</sup> -Kind Code <sup>4</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	B5	JP 62-45232	09/02/1994	Kanamaru		
	B6	JP 62-45231	09/02/1994	Fujitsu		
	B7	JP 1-149627	06/12/1989	Tokyo Electric		
	B8	JP 62-281533	12/07/1987	Sano		
	B9	JP 2-220526	09/03/1990	Katou		
	B10	JP 64-51838	02/28/1989	Hideo		
	B11	JP 57-159148	10/01/1982	Nakamura		
	B12	JP 1-122241	05/15/1989	Takahashi		
	B13	JP 1-122242	05/15/1989	Takahashi		

OTHER ART -- NON PATENT LITERATURE DOCUMENTS		
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
	C61	Norand History, 1989
	C62	Norand CA5950 Communications Adapter Specifications, 1991
	C63	Norand Data Collection System: 7527 Emulation Products, Technical Overview, Edition 1.0, 09/1991
	C64	Norand 1000 Series Modular RF Terminals, The Family Of Terminals That Fits Your Needs, 1993
	C65	Norand 1000 Series Systems, A Breakthrough Flexibility For Pocket RF, 1991
	C66	Norand RT/DT 1100 Radio Data Terminal, Compact, Pocket-Sized Terminal Offers Scanning And Memory Capabilities Simply By Changing Modules, 1992

<b>EXAMINER SIGNATURE</b>	<b>DATE CONSIDERED</b>
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Sheet <span style="border: 1px solid black; padding: 0 5px;">2</span> Of <span style="border: 1px solid black; padding: 0 5px;">4</span>				First Named Inventor	Ronald L. Mahany
				Group Art Unit	2685
				Examiner Name	Nguyen Thanh Vo
				Attorney Docket Number	14419US01

<b>OTHER ART -- NON PATENT LITERATURE DOCUMENTS</b>		
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
C67	Norand 3000 Series Radio Data Terminal User's Guide, NPN:961-047-017, 07/1990	
C68	Intermec RT 5900 Mobile-Mount Terminal Specification, 08/02/2000	
C69	Intermec Hand-Held Terminals Product Profile, 1700 Series, 1990	
C70	GOLLNICK, Norand, Models RC3250 & RC3240 RF Network Controllers 225-445-XXX, Theory Of Operation, Document No. 561-014-035, Revision: A, 12/16/1991	
C71	Norand RC3240/RC3250 Network Controller, Service Instruction Book, 980-000-095, 1 <sup>st</sup> Edition, 03/1992	
C72	Defendant Qualcomm Incorporated's Supplemental Responses To Plaintiff Broadcom Corporation's First Set Of Interrogatories (Nos. 1-19)	
C73	Defendant Qualcomm Incorporated's Second Supplemental Responses To Plaintiff Broadcom Corporation's First Set Of Interrogatories (Nos. 1-19), 03/01/2006	
C74	Defendant Qualcomm Incorporated's Fifth Supplemental Responses To Plaintiff Broadcom Corporation's First Set Of Interrogatories (Nos. 2-4, 60 And First Supplemental Response To Interrogatory No. 18	
C75	ALI et al., "Interference Rejection in Direct-Sequence Spread Spectrum by Chip-Code Processing," IEEE International Symposium, King's College, University of London, England, September 1990.	
C76	ALLPRESS, et al., "An Investigation of RAKE Receiver Operation in an Urban Environment for Various Spreading Bandwidth Allocations," February 1992, pp. 506-10.	
C77	ANANASSO, et al., "Satellite Applications of Spread Spectrum Frequency Hopping Techniques, 1989 IEEE.	
C78	AYERS, "Selection of a Forward Error Correcting Code for the Data Communication Radio Link of the Advanced Train Control System," 1990, IEEE Transactions on Vehicular Technology, p. 247-54.	
C79	BAUSBACHER, "Transmission Parameter Selection in an Adaptive Packet-Radio Network," Tactical Communications Conference, Fort Wayne, Indiana, April 1990.	
C80	BINGHAM, "Multicarrier Modulation for Data Transmission: An Idea Whose Time Has Come, 1990 IEEE.	
C81	ESTABROOK, et al., "A 20/30 GHZ Personal Access Satellite System Design," 1989 IEEE.	
C82	FILIP, et al., "Optimum Utilization of the Channel Capacity of a Satellite Link in the Presence of Amplitude Scintillations and Rain Attenuation," 1990 IEEE.	
C83	GILHOUSEN, et al., "Increased Capacity Using CDMA for Mobile Satellite Communications," May 1990, IEEE Journal on Selected Areas in Communications, p. 503-14.	
C84	GOODMAN, et al., "Spread-Spectrum Mobile Radio with Variable-Bit-Rate Speech Transmission," 1982 IEEE.	

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Substitute for form 1449A/PTO  <h2 style="text-align: center;">INFORMATION DISCLOSURE STATEMENT BY APPLICANT</h2> <p style="text-align: center;">(use as many sheets as necessary)</p>		<h3 style="text-align: center;">Complete if Known</h3> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Application Number</td> <td>10/057,816</td> </tr> <tr> <td>Filing Date</td> <td>January 24, 2002</td> </tr> <tr> <td>First Named Inventor</td> <td>Ronald L. Mahany</td> </tr> <tr> <td>Group Art Unit</td> <td>2685</td> </tr> <tr> <td>Examiner Name</td> <td>Nguyen Thanh Vo</td> </tr> <tr> <td>Attorney Docket Number</td> <td>14419US01</td> </tr> </table>		Application Number	10/057,816	Filing Date	January 24, 2002	First Named Inventor	Ronald L. Mahany	Group Art Unit	2685	Examiner Name	Nguyen Thanh Vo	Attorney Docket Number	14419US01
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C85	GROVER, et al., "Simulations and Experimental Studies on the Concept of a Rate-Adaptive Digital Subscriber Loop (RA-DSL)," 1991 IEEE.
C86	GUPTA, "Variable Coded MFSK Signaling in an Adaptive Wideband High-Throughput RF/MBC System," Milcom 91 Conference Record, 1991
C87	HAGENAUER, et al., "On Hybrid Trellis-Coded 8/4 PSK Modulation Systems," 1989 IEEE.
C88	HAGENAUER, et al., "The Performance of Rate-Compatible Punctured Convolutional Codes for Digital Mobile Radio," 1990 IEEE.
C89	JACOBSMEYER, "Adaptive Data Rate Communications for High Frequency Radio Channels," 1991 IEEE.
C90	JACOBSMEYER, "Message Waiting Time Performance for Meteor-Burst Communication Systems," 1989 IEEE.
C91	KIM, "Adaptive Rate Coding in Frequency-Hopped Random Access Communications Systems," IEEE Global Telecommunications Conference, Orlando, Florida, December 6-9, 1992.
C92	MAZUR, et al., "Adaptive Forward Error Correction Techniques in TDMA," September 19-23, 1983, Phoenix, Arizona.
C93	MUI, "Variable Rate Signaling in Conjunction with Coding for Meteor Burst Communications," 1991 IEEE.
C94	MUROTA, et al., GMSK Modulation for Digital Mobile Radio Telephony, IEEE Trans. On Comm., Vol. COM-29, No. 7, July 1981, pp. 1044-50.
C95	PAHLAVAN, et al., "Spread-Spectrum Multiple-Access Performance of Orthogonal Codes for Indoor Radio Communications," May 1990, IEEE Transactions on Communications, pp. 574-577.
C96	PETIT, "Clover-II: A technical Overview," ARRL Amateur Radio, September 27-29, 1991, pp. 124-129.
C97	SCHILLING, et al., "Meteor Burst Communications for LPI Applications," 1990 IEEE.
C98	SMITH, "Multi-Waveform Technologies for Multi-Mission Radio Applications," 1991 MILCOM.
C99	SMITH, et al., "A Dual Frequency-Band, Dual Bit-Rate Payload Concept for Communications Satellites," Sixth International Conference on Digital Satellite Communications, September 19-23, 1983, IEEE Catalog No. 83CH1848-1, pp. XI9-XI17.
C100	STUBER, et al., "An Adaptive Rate Algorithm for FH/BFSK Signaling," 1988 IEEE.
C101	SUNDBERG, et al., "Hybrid Trellis-Coded 8/4 PSK Systems," 1989 IEEE.
C102	WICKER, "Hybrid-ARQ Reed-Solomon Coding in an Adaptive Rate System," 1989 IEEE.
C103	WILLIS, "Fade Counter measures Experiment," 1990 IEEE, London;

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C104	WILLIS, "Fade counter-measures applied to transmissions at 20/30 GHz," Electronics & Communication Engineering Journal, April 1991.
C105	YATES, "An Adaptive Rate Digital Transmission Scheme for Satellite Links Affected by Rain," 1986 ICDSC-7.
C106	ZHANG, et al., "An Integrated Voice/Data System for Mobile Indoor Radio networks," 1990 IEEE.

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